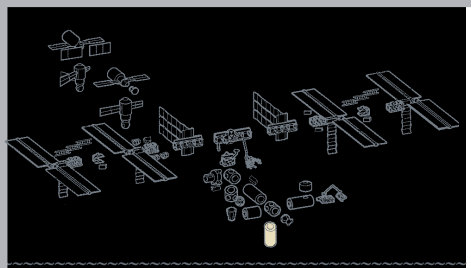
JAXA H-II Transfer Vehicle (HTV)

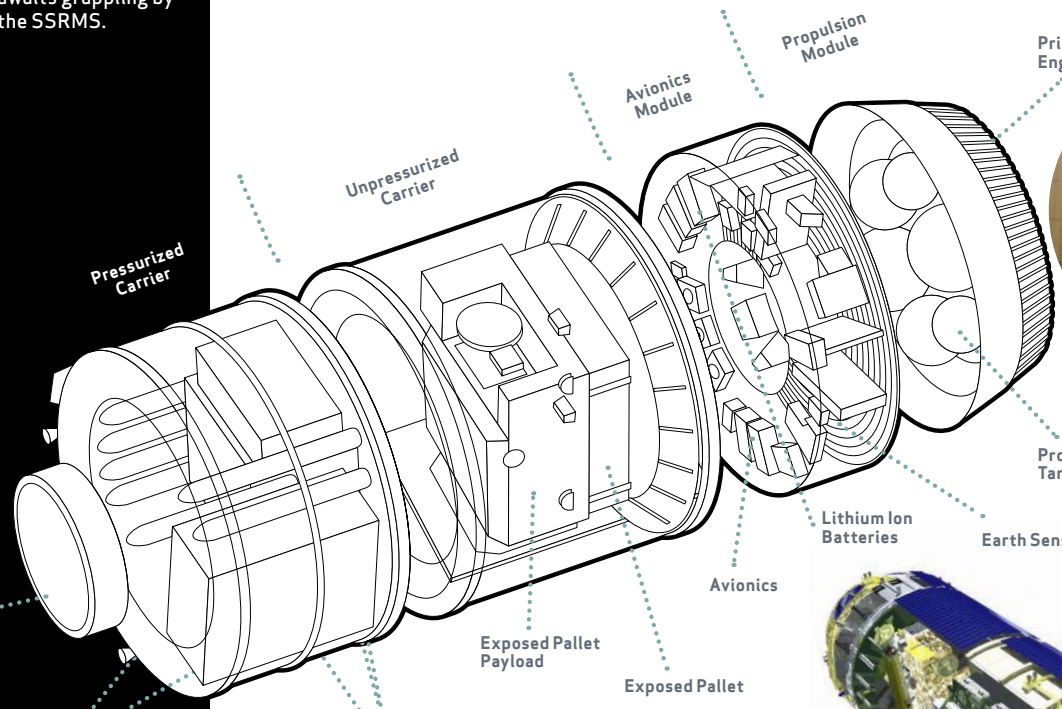
Japan Aerospace Exploration Agency (JAXA)/ Mitsubishi Heavy Industries, Ltd.

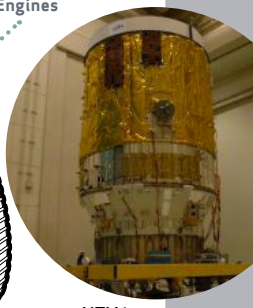
The H-II Transfer Vehicle is an autonomous logistical resupply vehicle designed to berth to the International Space Station using the Space Station Remote Manipulation System (SSRMS). HTV offers the capability to carry logistics materials in both its internal pressurized carrier as well as in an unpressurized carrier for exterior placement. It is launched on the H-II unmanned launch vehicle and can carry dry cargo, gas and water, and propellant. After fresh cargo is unloaded at the ISS, the HTV is loaded with trash and waste products; after unberthing and deorbit, it is incinerated during reentry.



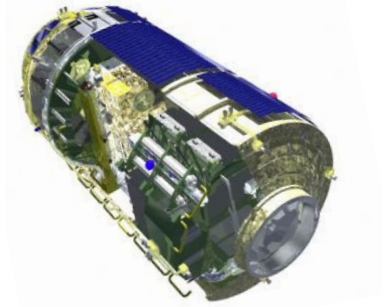
After rendezvous with the ISS, the HTV awaits grappling by the SSRMS.

Interior view of HTV pressurized carrier.





HTV in development



Length	9.2 m (30 ft)
Maximum diameter	4.4 m (14.4 ft)
Launch mass	16,500 kg (36,375 lb)
Cargo upload capacity	5,500 kg (12,125 lb)
Pressurized habitable volume	14 m^3 (495 ft^3)
Unpressurized volume	16 m^3 (565 ft^3)
Orbital life	6 mo

The HTV is berthed onto Node 2 Harmony nadir port by the SSRMS.

The HTV primary propulsion system performs rendezvous maneuvers.